Gem & Mineral Sites

OF SOUTHERN SCOTLAND

A MAP SHOWING THE BEST GEM AND MINERAL SITES, WITH ORDNANCE SURVEY GRID REFERENCES

- Keuper Marl and Sandstone
- Bunter Sandstone
- Permian Marl and Permo-Triassic Sandstone
- Coal Measures
- Carboniferous Limestone Series
- Upper Old Red Sandstone
- Lower Old Red Sandstone and Downtonian
- Silurian
- Ordovician
- Permian and Carboniferous
- Devonian
- Dolerite, Gabbro, Serpentine
- Granite, Diorite, Felsite, etc.

FIRTH OF CLYDE

FIRTH OF FORTH

EDINBURGH

DUNBAR

Amethyst
Agate

KILMARNOCK

Agate

AYR

Jasper and Agate

LENDALFOOT

Serpentine

CARSPHAIRN

BARGRENNAN

NEWTON STEWART

STRANRAER

Flint

WHITHORN

Mull of Galloway

DUMFRIES

NEW GALLOWAY

Amethyst
Cairgorm

CASTLE DOUGLAS

SOLWAY FIRTH

Agate

PEEBLES

GOLD

LEADHILLS

GALASHIELS

Agate

KELSO

GOLD

HAWICK

Agate

Rock Crystal

CHEVIOT HILLS

MOFFAT

LANGHOLM

ANNAN

CARLISLE

MINES

- LEAD & ZINC
- COPPER
- HEMATITE
- OTHERS
- ANTIMONY
- BARIUM
- NICKEL
- URANIUM
- ZEOLITES

HOW TO USE THIS MAP

This map of Southern Scotland is a general guide to the geology and main areas of gemmological and mineralogical interest. It must be understood that this list cannot be, nor is intended to be, fully comprehensive and the inclusion of a location does not give the reader an automatic right to collect there; moreover the individual is fully responsible for seeking permission and access.

To find the location, first select the appropriate Ordnance Survey Map (1:50,000) series, refer to the National Grid Reference Number given and use it to find the actual location. If the reader is in doubt how to do this, full details appear on all O.S. maps.

Next, a word on safety. The majority of Galloway and the Borders is sparsely populated and consequently wandering off into the hills alone is extremely foolhardy and could even be suicidal. Unlike the Lake District, the Mountain Rescue services have a very large area to cover, so if you, the collector, become lost it may take a long time to find you. The area moreover is one of much sunshine, but unfortunately also high rainfall. This often is accompanied by severe gales, so take plenty of warm clothing, food and suitable footwear, and ALWAYS let someone know where you are going.

It is recommended that this map is used in conjunction with other Gems' publications, viz:— The articles on Galloway mineral locations, in Gems Vol, 9 No. 2, Vol 10 No. 4, Vol. 11 No. 1 and the Gems publications, **Finding Britain's Gems** and **More of Britain's Gems**, all available from Lapidary Publications, 84 High Street, Broadstairs, Kent, CT10 1JJ.

A final word, remember nature took hundreds of years to form the minerals we discover, so you should only take what you want and no more, for many other collectors also will want to obtain specimens from the locality.

THE GEOLOGY OF SOUTHERN SCOTLAND

The larger part of southern Scotland is covered with sedimentary rocks. Here and there these have been intruded with igneous ones. The earliest rocks in our area date from the age geologists call the Ordovician Era, roughly some 400 million years ago, at which time it is believed Scotland and England were separated by a sea.

In this period sediments were laid down of various types. Later these became consolidated as the area was uplifted, and became rocks. The rocks present from this period include grits, greywaches (a type of sandstone), shales and siltstones.

This sedimentary activity continued into the Silurian Age (350 million years ago) when similar rock types were deposited. This belt of similar rock types stretches throughout our area from the Mull of Galloway to the Berwickshire coast. At some stage in its deposition the rocks have been intensively folded predominantly along a north-eastern axis. this is thought to have taken place at the time of the Silurian.

In the Devonian period there was a cycle of intense volcanic activity and the older rocks were intruded with larvas, especially in the east. Much of this contains holes or vesicles some of which are filled with agate. Also in this part of the region large area of sediments were deposited, of either sandstone or sandstone conglomerate. This larva area extends to the East of Jedburgh, but in the Stewartry area the igneous instrusions are of granite and during the process the surrounding older rocks have become metamorphosed resulting in the formation of many interesting minerals.

The volcanic activity continued into the Carboniferous times (280 million years ago) and the larva flows were followed by a further sedimentation this time the rock types being sandstones, mudstones and to a lesser extent grits and limestones. During the Permian more sedimentary rocks were formed, largely sandstone and conglomerates. This area, largely around Annan, is not very well exposed and as a result is pretty well devoid of minerals.

In more recent times the area was heavily glaciated and the region is covered with the deposits left by the glaciers' retreat. This glacial activity is responsible for many of the lochs of the area, for these are believed to have been formed by the ice scouring out hollows in the rock and these then becoming filled with water.

ABBREVIATIONS

A	Agate	FeL	Limonite
Am	Amethyst	Fl	Flourite
An	Anglesite	Gt	Garnet
Ars	Arsenopyrite	Gyp	Gypsum
Au	Gold	Jas	Jasper
Az	Azurite	Lin	Linarite
Ba	Barytes	M	Mine
Be	Beryl	Mal	Malachite
Bi	Bismuth	Mn	Pyrolusite
Ca	Calcite	Mo	Molybdenite
Cairn	Cairngorm	Ni	Nickel ores
Cerus	Cerussite	Pb	Galena
Chd	Chalcedony	Pyr	Pyrite
Chop	Chalcopyrite	Pyrom	Pyromorphite
Cy	Chrysocolla	Qry	Quarry
Dol	Dolomite	Qtz	Rock Crystal
Ep	Epidote	Sb	Stibnite
Et	Erythrite	Smith	Smithsonite
FeH	Hematite	Tm	Tourmaline
FeG	Goethite	U	Uranium
FeS	Siderite	Zn	Sphalerite
FeSp	Specularite	Xls	Crystals

PUBLIC EXHIBITIONS AND INFORMATION

Cumbria
Carlisle Museum, good collection of local minerals.

Dumfries and Galloway
Dumfries Burgh Museum. Excellent collection of local minerals especially from Leadhills—Wanlockhead.
Wanlockhead—Mining Museum (open spring to summer only). A mine is presently being driven into the Susanna Vein and may be open to visitors, also parts of both villages are designated to become open air museums.

LAPIDARY AND MINERAL DEALERS

Castle Douglas
Galloway Gems, 5a Church Street.

Creetown
Creetown Rock and Gem Museum, The Schoolhouse, Creetown.

Ayr
Stones & Settings, 16 Parkhouse Sreet, Ayr.

LOCALITIES

Border Sites

Jedburgh Quarry	NT 625191	Am, Ca, Cairn, Qtz.
Kirk Yetholm and Town Yetholm	NT 845202-318400	A, Cn, Qtz, Glacial Deposits in the River Bowmont, look for gravel banks in the river.
St. Mary's Loch	NT 203235	Qtz, Au.
Glengaber Burn Howtel Quarry	NT 892334	A, Cn, Chd, Jas, Qtz, Disused Gravel Quarry.
New Castleton, Kershope Burn	NT 497833	A, Am, Chd, Ba, Arragonite, Kershop Quarry, cavities in Basalt 6in. lined with the above.
Jed Water	NT 675104 to 661242	A, Chd, Glacial Deposits in the river bed.

Dumfries and Galloway Sites

Annan to Langholm Cannobie	NY 392762	Gyp.
Byre Burn	NY 395795	Pyr.
Sowies Pot	NY 370824	A Ca-a pink variety.
Skippers' Bridge Langholm	NY 371839	A.
Red Kirk Point Gretna	NY 302651	A, Cn, Jas.
West Water M Langholm	NY 293824	Pb.
Westerkirk Glandinning M	312965	Chop, Pb, Pyr, Sb, Qtz, Zn, Also Jamesonite, Valentinite and Cervantite.
Warmonbie	NY 195690	River Deposit Jas.
Dalton	NY 128756	Chd, Jas in R. Annan.
Kelhead Quarry	NY 145692	Limestone Quarry. Veins of Ca, Dog-tooth xls.

Dumfries Area Sites

Dumfries	NX 968761	River Nith red and yellow Jas.
Craigbill	NX 938696	FeH associate with small crystals of Sphene.
Auchenfad, Mabie	NX 949702	FeH, FeG, Ca.
Airds Point	NX 990660	Small xls. of sphene in granite.
New Abbey Criffel Area	NX 9360-9864	Many of the burns of the mountain yield Am, Cairn and Qtz associated with FeH, eg Kinharvie Burn NX 922655, Southwick Burn NX 922602.
Long Fell, New Abbey	NX 479654	TM variety Schorl.
Auchengray Hill, New Abbey	NX 927673	TM 3mm long.
Kirkbean	NX 978592	Birrenswark larvas exposed in burn vesicles contain A, Cn and red and yellow Jas.
Arbigland	NX 994574	Ca, Gyp, Pyr in limestones.
Southerness	NX 972542	Ca Nailhead and Dogtooth.
Coast from Needles Eye to Sandyhills Bay	NX 915562 to NX 895554	Veins of Ba, Ca, Dol cutting through hornfels associated with FeH, Am, Cairn, Et Pyr, Bi, Ni, Qtz, U, Chop and the rare chlorides Atamacite and Connelite.
Coast from Sandyhills to Port O'Warren Pipers Cove	NX 893548 to 880532 NX 890546	Veins of Ca and Dol containing Am, Chop, Mal and U.
Kirkgunzean	NX 897685	Lotus Quarry Beeswing Pegmatite in Granite, Bi, Fl, Ca, Ep, Mo, Pyr and Be.

Castle Douglas Area Sites

Screel	NX 785548	Am, FeH, Qtz, some pseudomorphs after Calcite.
Screel	NX 797546	Mo, Qtz, some ferromolybdite.
Auchencairn	NX 772525	FeH, Ba, Am, some FeSP, Qtz and Jas.
Auchencairn	NX 818484	Auchencairn M, Ba, Cy, Chop, Cy, Az, Mal, FeL, Mn as fine dendrites, Aurichalcite.
Rascarrel	NX 814484	Ba, Mal, Jas, FeH, Qtz, Pyrom, Tetrahedrite.
Hestan Island	NX 838505	Ca, Mal, Qtz.
Almorness Peninsular	NX 8352 approx.	Vein of Mo with Ep.
Barlocco M	NX 788475	Az, Ba, Mal, Qtz.
Port Mary	NX 756454	Veins of Ba, Ca in the rocks on the coast.
Abbey Burn, Foot	NX 742445	FeSp and Jas on the beach.

Wigtownshire and Gatehouse Area Sites

Knocknairling Hill	NX 615715	Metamorphic rock includes Gt, Ni and Tm
Clatteringshaws	NX 546754	Qtz in pegmatite red and yellow Gts with muscovite.
Enrick M	NX 619551	Ca, Chop, Dol, Mal, Qtz.
Lauchentyre	NX 556575	Ca, Chop, Dol, H Mal, Qtz, Pyrom, Zn and Wulfenite.
King's Laggan M	NX 562578	Chop, Cy, Mal, Pb, Qtz, Zn.
Pibble M	NX 525607	Ba, Cerus, Chop, H Lin, Mal, FeS, An, Qtz, Pyrom.
Talmotry	NX 477702	Chop, Ni, Niccolite, Dudgenite, Annabergite, Cobalt minerals in Qtz, Ars.
Cairnsmore M	NX 463636	Ca, Ba, Pb, Zn, Qtz.
West Blackcraig M	NX 440649	Az, Ca, Chop, Dol, Ba, Mal, Pb, Pyr, Qtz, Zn.
East Blackcraig M	NX 446645	Ba, Ca, Dol, Chop, PB, Pyr, Qtr, Zn.
Wood of Cree M	NX 386695	Chop, Zn, Pyr, Pb.
Coldstream Burn M	NX 387697	Chop, Pb, Pyr, Zn.
Port William	NX 435338	Jas on beaches with flint.

Girvan Area Sites

Lendalfoot	NX 901132	Beaches contain A, Jas and Bloodstone, Serpentine also occurs.
Lendalfoot	NX 135909	On the shore Pyr and Thomsonite.
Maidens	NS 213080-197072	A, Jas, Cn, Onyx, Qtz.
Garryhorn M	NX 532935	Ba, Ca, Chop, Dol, H Mal, Pb, Pyr, Qtz, Zn, Hydrozincite.
Coran of Portmark	NX 503920	FeH.

Ayr District Area Sites

New Cumnock Knipe M	NS 657104	Qtz, Sb, Cervantite, Valentinite, Kermesite.
Galston	NS 525345	Burn Anne Red and yellow Moss A, Jas, Qtz, milk opal.
Sorn	NS 626301	FeH, FeG, Qtz, Ca.
Muirkirk, Slot Burn	NS 683322	Jas (red and yellow).
Dunure Coast	NS 255160 to 300188	A, Ca, Jas, Qtz, Chd, Onyx.
Dundonald Quarry	NS 345341	Apatite (applegreen in W side of Quarry).
Sanquar, Bail Hill	NX 754143	Augite xls, also Natrolite, Mesolite, Scolocite.

Leadhills-Wanlockhead Area Sites

This famous mineral area has produced many fine specimens but since the closing of the mines in the 1930s little has been produced. However, the following sites are worth visiting.

Wanlockhead Glencrief M	NS 865133	Ba, Ca, Chop, Dol, Pb, Pyr, Sb, Qtz, Zn.
Whytes Cleugh	NS 868135	An, Lin, Mal, H Pb, Pyrom, Qtz, Melaconite, Platternite, Magnesite.
Wanlock Dod Mines	NS 875135	An, Cerus, FeH, Lin, Mimetite, Pyrom, Qtz, Mn, Psilomelane, Platternite, Plumbocalcite, Hydrocerussite, Vanadinite.
Leadhills Leadhills Dod Mines	NS 877142	Ba, Cerus, Chry, Chop, Mal, Pb, Pyrom, Lin, Leadhillite, Caledonite.
Glengonnar M	NS 885138	Ba, Ca, Cerus, Mal, Lin, Pb, Pyrom, Qtz, Caledonite, Olivenite.
Susanna M	NS 882148	Ca, Fl, Cerus, An, Pb, Pyrom, Qtz, Leadhillite, Lanarkshire, Lanarkite, Susannite.
Gold Workings	NS 908162 NS 880132	Au in burns. According to Heddle the largest nugget found in the area, called the Martin, weighed 1½ ozs.

ABOUT ORDNANCE SURVEY MAPS

The quickest way to pinpoint any spot in the British Isles (to within a few yards) is through the O.S. map covering that area. They are stocked by many stationers and in the reference section of most libraries. The use of the grid reference numbers is explained on each map.

Lapidary Publications, publishers of this map, also publish the following.—

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Please add 12p postage if sending for any of them direct. We run a correspondence course on mineral identification and organise regular mineralogical tours both in this country and abroad. We will gladly supply details on application.

N.B. Don't forget the collectors' code. Ask permission for access to private property. Avoid doing any damage to same. Don't hog everything you find, but leave some for others. No hammer and chisel on National Trust property.

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